



## FY2002 Nuclear Physics Manpower Survey

Division of Nuclear Physics

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This report conveys the results of the October 2002 survey of scientific manpower in the Nuclear Physics program. The same procedure as in previous years was used. People were counted in the categories of permanent Ph.D. staff, temporary Ph.D. staff, Ph.D. staff not supported by DOE, DOE-supported graduate students, and graduate students not supported by DOE. Counts of Ph.D.'s awarded were also collected. In all cases, people were asked to self-define whether they were primarily doing experimental or theoretical work. Persons who receive support from the National Science Foundation are not included in this survey.

On October 1, 2002, we found that 2,000 scientists and students were associated with the program. Of this number DOE supported 702 permanent Ph.D. staff, 364 temporary Ph.D. staff, and 442 graduate students. Not supported directly by DOE but associated with the program were an additional 199 Ph.D. staff and 293 graduate students.

Summaries of the numerical data for the years 1986 through 2002 are provided as well as separate summary data for the national laboratories and universities.

James C. Hawkins  
December 13, 2002

**Results of Nuclear Physics Manpower Surveys**  
**DOE Supported Manpower Data**  
**Manpower Counts on October 1st**

**SUMMARY OF LABORATORIES & UNIVERSITIES**  
**Both Experimental and Theory**

	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Permanent Staff</b>	603	658	662	672	666	676	699	707	687	657	689	682	689	690	676	683	702
<b>Temporary Staff</b>	268	271	275	284	275	296	330	375	362	342	346	360	380	394	363	362	364
<b>Graduate Students</b>	343	370	391	382	411	427	422	426	449	418	423	422	415	404	408	408	442
<b>TOTAL</b>	1,214	1,299	1,328	1,338	1,352	1,399	1,451	1,508	1,498	1,417	1,458	1,464	1,484	1,488	1,447	1,453	1,508
<b>Ph.D.'s Awarded</b>	76	79	66	87	70	81	114	99	97	101	96	97	100	95	87	67	100
<b>Experimental</b>																	
	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Permanent Staff</b>	475	518	527	531	525	529	549	556	536	515	536	538	547	551	542	536	554
<b>Temporary Staff</b>	206	210	215	215	205	226	247	280	278	260	263	280	299	298	286	287	277
<b>Graduate Students</b>	271	295	311	304	333	342	336	329	345	320	321	323	323	319	320	319	338
<b>TOTAL</b>	952	1,023	1,053	1,050	1,063	1,097	1,132	1,165	1,159	1,095	1,120	1,141	1,169	1,168	1,148	1,142	1,169
<b>Ph.D.'s Awarded</b>	48	54	45	64	52	59	88	73	80	78	71	66	67	70	56	48	67
<b>Theory</b>																	
	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Permanent Staff</b>	128	140	135	141	141	147	150	151	151	142	153	144	142	139	134	147	148
<b>Temporary Staff</b>	62	61	60	69	70	70	83	95	84	82	83	80	81	96	77	75	87
<b>Graduate Students</b>	72	75	80	78	78	85	86	97	104	98	102	99	92	85	88	89	104
<b>TOTAL</b>	262	276	275	288	289	302	319	343	339	322	338	323	315	320	299	311	339
<b>Ph.D.'s Awarded</b>	28	25	21	23	18	22	26	26	17	23	25	31	33	25	31	19	33

**Results of Nuclear Physics Manpower Surveys**  
**DOE Supported Manpower Data**  
**Manpower Counts on October 1st**

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**SUMMARY OF NATIONAL LABORATORIES**

**Both Experimental and Theory**

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
<b>Permanent Staff</b>	317	333	346	353	355	357	359	361	340	323	321	318	320	327	317	316	338
<b>Temporary Staff</b>	99	108	111	122	117	126	139	158	143	145	134	143	147	163	140	137	137
<b>Graduate Students</b>	36	38	45	49	58	58	53	57	65	58	62	63	79	62	53	55	57
<b>TOTAL</b>	452	479	502	524	530	541	551	576	548	526	517	524	546	552	510	508	532

<b>Ph.D.'s Awarded</b>	1	4	6	5	9	10	7	13	19	11	10	9	15	0	0	0	0
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**Experimental**

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
<b>Permanent Staff</b>	270	284	298	296	297	302	303	314	290	276	278	280	284	290	286	281	301
<b>Temporary Staff</b>	80	89	92	100	92	101	114	128	121	118	110	120	124	129	121	117	111
<b>Graduate Students</b>	35	36	43	46	53	48	47	52	60	53	57	58	70	55	49	48	54
<b>TOTAL</b>	385	409	433	442	442	451	464	494	471	447	445	458	478	474	456	446	466

<b>Ph.D.'s Awarded</b>	1	4	6	4	8	9	5	11	18	10	9	6	12	0	0	0	0
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**Theory**

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
<b>Permanent Staff</b>	47	49	48	57	58	55	56	47	50	47	43	38	36	37	31	35	37
<b>Temporary Staff</b>	19	19	19	22	25	25	25	30	22	27	24	23	23	34	19	20	26
<b>Graduate Students</b>	1	2	2	3	5	10	6	5	5	5	5	9	7	4	7	3	
<b>TOTAL</b>	67	70	69	82	88	90	87	82	77	79	72	66	68	78	54	62	66

<b>Ph.D.'s Awarded</b>	0	0	0	1	1	1	2	2	1	1	1	3	3	0	0	0	0
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**Results of Nuclear Physics Manpower Surveys**

**DOE Supported Manpower Data**

**Manpower Counts on October 1st**

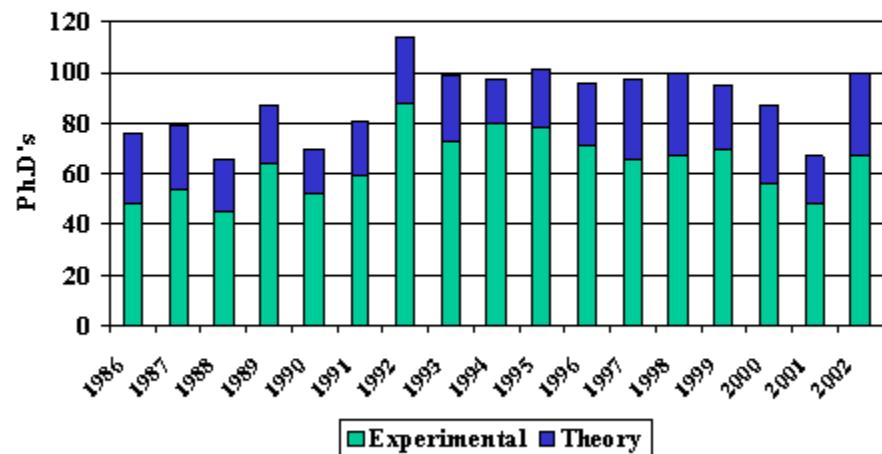
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**SUMMARY OF UNIVERSITIES**

**Both Experimental and Theory**

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
<b>Permanent Staff</b>	286	325	316	319	311	319	340	346	347	334	368	364	369	363	359	367	364
<b>Temporary Staff</b>	169	163	164	162	158	170	191	217	219	197	212	217	233	231	223	225	227
<b>Graduate Students</b>	307	332	346	333	353	369	369	369	384	360	361	359	336	342	355	353	385
<b>TOTAL</b>	762	820	826	814	822	858	900	932	950	891	941	940	938	936	937	945	976
<b>Ph.D.'s Awarded</b>	75	75	60	82	61	71	107	86	78	90	86	88	85	95	87	67	100
<b>Experimental</b>																	
	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
<b>Permanent Staff</b>	205	234	229	235	228	227	246	242	246	239	258	258	263	261	256	255	253
<b>Temporary Staff</b>	126	121	123	115	113	125	133	152	157	142	153	160	175	169	165	170	166
<b>Graduate Students</b>	236	259	268	258	280	294	289	277	285	267	264	265	253	264	271	271	284
<b>TOTAL</b>	567	614	620	608	621	646	668	671	688	648	675	683	691	694	692	696	703
<b>Ph.D.'s Awarded</b>	47	50	39	60	44	50	83	62	62	68	62	60	55	70	56	48	67
<b>Theory</b>																	
	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
<b>Permanent Staff</b>	81	91	87	84	83	92	94	104	101	95	110	106	106	102	103	112	111
<b>Temporary Staff</b>	43	42	41	47	45	45	58	65	62	55	59	57	58	62	58	55	61
<b>Graduate Students</b>	71	73	78	75	73	75	80	92	99	93	97	94	83	78	84	82	101
<b>TOTAL</b>	195	206	206	206	201	212	232	261	262	243	266	257	247	242	245	249	273
<b>Ph.D.'s Awarded</b>	28	25	21	22	17	21	24	24	16	22	24	28	30	25	31	19	33

## FY2002 Nuclear Physics Manpower Survey Ph.D.s Awarded



## FY2002 Nuclear Physics Manpower Survey DOE Support Manpower Laboratories and Universities

